

IN THE SPECIFICATION

Please replace the paragraph starting at page 3, line 25 with the following:

The free magnetic layer 140 may include, e.g., NiFeCo or the like. The fixed magnetic layer 160 may include, e.g., NiFe or the like. The anti-ferromagnetic layer 170 may include magnetic material such as, e.g., IrMn or the like. A magnetization vector of the fixed magnetic layer 160 is fixed by the anti-ferromagnetic layer 170 disposed adjacent to the fixed magnetic layer 160. A magnetization vector of the ~~free magnetic layer 160~~ free magnetic layer 140 varies according to the externally applied magnetic field.

Please replace the paragraph beginning at page 3, line 31, with the following:

For example, the tunneling insulation layer 150 ~~may~~ 150 may include an insulation material such as Al2O3. The tunneling insulation layer 150 may have a thickness of about 20Å. Thus, a magnetic tunneling junction 110 is formed between the tunneling insulation layer 150 and the free magnetic layer 140, and between the tunneling insulation layer 150 and the fixed magnetic layer 160 due to the thin thickness of the tunneling insulation layer 150. A tunneling current flows through the magnetic tunneling junction. A bit line (or a data selection line) 120 is formed on the free magnetic layer 140, and is electrically coupled with the free magnetic layer 140. A digit line 130 is formed under the anti-ferromagnetic layer 170, and is electrically insulated from the anti-ferromagnetic layer 170. The transistor 190 and a word line 180 are formed under the digit line. The word line 180 is connected to the digit line 130. The word line 180 is electrically connected to a gate electrode of the transistor 190 to turn on or turn off the transistor 190.